# Attachment VIII.C.18.a.-4

# FIRM OVERVIEW AND CAPABILITIES



# **HUGHES ASSOCIATES, INC.**

#### Founded 1980

Hughes is a global leader offering engineering and consulting services including fire protection and life safety, code compliance, risk and hazard analysis, research and development, testing, environmental, forensics and training. Hughes' experts are committed to technical excellence and providing cost effective and sustainable solutions for our clients.













### PRIMARY SERVICES

**Fire Safety System Design**: Fire detection, alarm and mass notification system design; fire protection master planning; water-based and foam fire suppression system design; gaseous extinguishing system design; fire pump system design; fire water supply analysis; smoke control system design, plans and specifications development; shop drawing review; systems inspection; cost estimation; construction administration services; and acceptance testing.

**Code Compliance:** Applicable code determination; code compliance analysis; construction type determination; code documentation; ADA compliance; code equivalency development; code variance preparation; code strategy analysis; code conflict resolution; performance based analysis; and negotiation with AHJ.

**Hazard Analysis and Risk Management:** Probabilistic Risk Assessment (PRA), safety analysis, mitigation, licensing, design engineering, plant operations, human factors, technology evaluation and selection, gap assessments, trade-off studies, and other risk management services.

**Fire Protection Systems Commissioning:** Design review; inspections; system verification; functional performance testing; design conformance analysis; final acceptance testing and documentation (fire alarm and mass notification systems, smoke control systems, fire sprinkler systems, including dry, preaction and deluge systems, special hazard fire suppression systems, foam fire suppression systems, kitchen hood suppression systems, fire damper systems, and elevator protection systems); and, deficiency resolution verification.

**Life Safety Program Consulting:** Occupant awareness training program development; fire safety procedures and manual development; evacuation planning and emergency preparedness planning; risk assessment; and loss prevention consulting.

**Computer Modeling:** Fire scenario development; egress analysis; and fire/smoke movement analysis.

**Fire Research and Testing:** Analysis, new product rollout, testing of unique fire protection strategies for special hazard and new processes or equipment designs that are not considered in current code provisions.

**Forensics:** Incident investigation; equipment failure analysis; systems analysis for code compliance; system false activation analysis; and litigation support.

#### **SECTORS WE SERVE**

- Commercial
- Government, Military and DoD
- Healthcare
- Higher Education
- Historic Buildings and Museums
- Hospitality and Entertainment
- Industrial and Manufacturing
- Power and Energy
- Science and Technology
- Telecommunications and Data Centers
- Transportation



## **OUR GLOBAL REACH**

**National Offices**: Arizona, California, Colorado, Florida, Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, Nebraska, New Jersey, New Mexico, New York, Nevada, North Carolina, Ohio, Pennsylvania, Rhode Island, Tennessee, Texas, Virginia, Washington, Washington, DC

**International Offices**: China: Shanghai, Italy: Milan, Korea: Seoul, United Kingdom: London

#### **CONTACT US**

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## PAGE 2

#### **KEY PERSONNEL**

Eric H. Cote, PE

Principal

Experience: 26 Years With Hughes: 12 Years

Mr. Cote has been dedicated to the analysis of building code requirements and their intent relative to the firesafe design of all structure types. He specializes in fire and life safety master planning, accessibility code analysis and plan review, and complex code issue analysis and equivalency development. Mr. Cote oversees all significant code-related evaluations of fire protection and life safety facilities. including fire safety design reviews, building surveys, fire system designs, and assessments of fire hazards. Project experience includes large mixed-use developments; research and instructional laboratories: educational facilities; residential and institutional multi-tenanted housing; and fire and code analyses for unique structure types.

## Robert M. Carasitti, PE

Senior Fire Protection Engineer

Experience: 23 Years With Hughes: 5 Years

Mr. Carasitti analyzes code requirements and their intent relative to the fire safe design of structures, including detailed review of architectural and engineering design drawings. He conducts fire protection and life safety facility evaluations including fire safety design reviews, building surveys, fire system designs, and assessment of fire hazards. Structures evaluated include large mixed-use facilities, atrium buildings, and buildings that include various occupancies.

Mr. Carasitti serves as the Chairman of the Fire Protection Fire Prevention advisory committee for the Board of Building Regulations and Standards.

## PROVIDE THE BEST FIRE PROTECTION FOR YOUR GUESTS

Hughes provides fire protection engineering and code consulting for hospitality and entertainment venues to meet aesthetic, functional, safety, and cost-effectiveness goals.

The hospitality and entertainment sectors are converging at a rapid pace as people desire venues that can provide multiple activities. These venues often have mixed uses including the main entertainment venue (such as casino or theme park), supporting entertainment venues (shows or rides), along with restaurants, clubs, bars, lounges, shopping, retail, and lodging with its related uses – guest rooms and suites, pools, spas, exercise, and both indoor and outdoor recreation. All of these facilities require back of house areas to support the guests and employees, as well as other buildings such as parking garages and central utility plants.

Hughes' experience with navigating the fire, life safety, and accessibility challenges inherent in hospitality and entertainment venues is the key to getting projects completed on time and on budget, and to providing an appropriate level of safety for years to come.

## **RELEVANT EXPERIENCE**

Seneca Allegany Hotel & Casino Addition, Salamanca, NY (2012) Code Consulting Services

**Empire Resorts Concord Casino, Kiamesha Lake, NY (2012)** *Code Consulting Services* 

Resorts World, Jamaica, NY (2011)
Code Consulting Services

Greenbrier Hotel Casino, White Sulphur Springs, WV (2010) Fire Protection Engineering Services

MGM Grand Casino, Detroit, MI (2008) Fire Safety Consulting

Twin River Casino, Lincoln, RI (2008) Audibility Testing

Treasure Island Resort & Casino Event Center, Rochester, MN (2008) Fire Safety Consulting

Gulfstream Park/Magna Entertainment, Hallandale Beach, FL (2007) Fire Protection Engineering Services

Marriott Grand Chateau, Las Vegas, NV (2007) Fire Safety Analysis

Newport Grand Casino, Newport, RI (2006) Life Safety Code Evaluation, Sprinkler and Fire Alarm System Design

Hollywood Park Redevelopment, CA (2007) CPTED Review

Lincoln Park Gaming & Entertainment Complex, RI (2006) Fire Safety Analysis

Mall of America Expansion, Bloomington, Minnesota (2006-2011) Fire Protection & Life Safety Consulting Services

Rio Hotel and Casino, Las Vegas, NV (1998) Fire Safety Analysis